

# Home Computing WEEKLY

Over 100 readers  
will be winners in  
our Statesoft  
competition

Better graphics  
on your CBM 64  
— we show you  
how

First full  
review of  
the new  
Spectrum+

An Argus Spectrum Publication

No. 89  
Oct 23-29, 1984

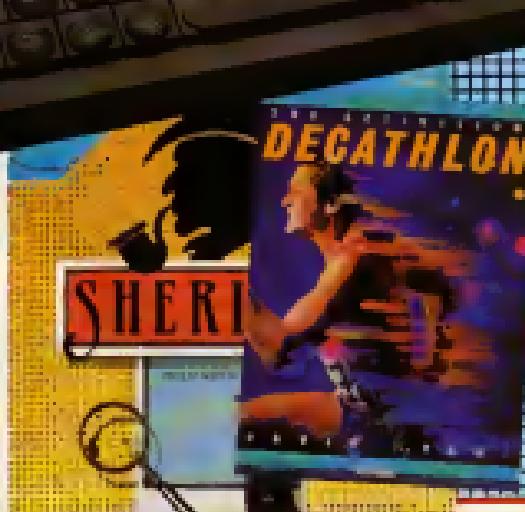
45p



## Spectrum surprise!

Giantly surprised nearly everyone by launching its new computer system just the day before its launch. The Spectrum+, a 64K computer with expandable memory, was kept under wraps until the official launch on Monday 15 October.

The Spectrum+ costs £180 and looks similar to the QL. A review copy was delivered to several magazines, together with a bottle of champagne. Continued on page 3



Spectrum  
program  
Escape from  
Devil's Island

Oric game  
Future tense

ZX81 listing  
Banger

Plus: news,  
letters, charts ...

**King Arthur's Quest**

HILL

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# After Midnight – two adventure games that herald a new dawn

A new concept – all graphics, 3D, and 360° scrolling

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**Software contest:** send your software for review to the editorial office at the address below. Contact us for competitions and other publications, too.



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# HOME COMPUTING WEEKLY

## BRITAIN'S BRIGHTEST

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**From front page**

no doubt to celebrate the marking session.

Dr Chris Stedler, teacher's chairman, said that research had shown that the Spectrum was preferred to other machines on all counts except for the keyboard. "There's a range of the market which buys the Commodore 64 not because it's got better or more software — it hasn't — but because of the hardware," he said.

Stedler says his new model is set to avoid promising what it could not necessarily deliver, and he used buying the units of the present model and delivering more in major class only, when the new model was tested. One of independent dealers had also received the computer.

■ Full review of the Spectrum+ on page 5

**Tribute to author**

Photo left, two-year-old son of the Colin/Atkins, is published as a posthumous tribute to his writer, young Colin Chardell. Colin, aged 20, died suddenly of a heart attack but throughout his long illness he kept his interest in the fate of his creation.

Colin's father, Gordon Chardell, said: "He worked very hard on it while he was ill. He was absolutely determined to finish it. He managed as to produce and although he had a stroke he was able to tell what was happening in the program."

The Chardells, at amateur director at Newgate Polytechnic, where Colin was taking a business studies course. He emphasised that he had already no desire to exploit Colin's death so possessive the game. "We did not want any money," he said. "We wanted the program to stand on its own merits. We did agree to a little assistance on the 'why' card, though."

Chardell is the publisher of the Right Computer and the company's managing director. "It was very understandable for Chardell's because they did not know he was ill. In those days he had died," said Mr Chardell.

Gordon Lloyd-Harley, professor of knightley, said: "When his parents told me he had died I was like having a brick-well I thought they would not accept a published but they wanted a postscript at a window."

And the game is doing very well, particularly in France, according to Mr Lloyd-Harley.

"Colin sent us the program after we advertised," he said. "I compared it with another one and thought it was better."

Mr Lloyd-Harley spoke of the tragedy of the young man's death. "Colin had a promising future ahead of him," he said. "I used to talk to him on the phone and he was a very positive lad who knew where he was going to spend each of his days. Every time I speak to him I'm I'm depressed."

**Four from the BBC**

BBC Publications has announced four new programs: Game Care, Doctor Who, Word Moves and Astronomy. Game Care £19.99 enables you to write simple but absorbing board games, and includes four computer games, one of which is used as a tutorial model.

Doctor Who enables you to create Doctor Who, his 11th incarnation, while Word Moves is a type editor for BBC Microtext. Both cost £9.99. Astronomy features a range of word-processor documents, and is aimed at the 9-12 year age range. Price: £9.99. To order, £1.50 pp free.

BBC Publications, 25 Maypole, Maypole High St, London NW1 4PL.

**Explorers linked by BBC**

Operations Edinburgh is using BBC computers to assist in ship administration and the processing of research data from previous marine surveys undertaken ship and in the field.

Avatar Computer has designed 12 BBC programs which will be used on board the Sir Walter Raleigh expedition ship when it leaves the UK on November 11.

Operations Edinburgh is a research-based organization which takes young explorers to the River Tees of Costa Rica and the coast of the Bahamas. The computer laboratory will be linked by satellite to centres in the UK based with scientists at Leeds University.

**Rock bottom prices**

Yet another company eager to sell software at reduced rates — Daily Computer Games. The company has announced that it will be selling many of its existing range of games at

£1.99, as well as new games which will be released at the rate of £2 per month.

Old Baby becomes the Castle, Koala Works, Stubbin and Tree for the Spectrum, as well as Barns the Bold, The Hobo, Daves, Phoenix Attack and Macmillan's Law School for the Dragon will now be available at these prices.

Computers catered for include Spectrum, VIC-20, Commodore 64, Dragon and Amstrad.

Daily Computer Games, Crossways Way, Luton, Bedfordshire LU1 2DD.

**New releases**

• From Mirrorsoft, Star Fury is produced in "a space fantasy for younger gamers", while Catastrophe involves you constructing a building. You then try to make the building as tall as possible — the only problem is that this is really quite tall. Both games cost for the C64 £4 and costs £6.99 for Amstrad and £7.99 for disc.

Mirrorsoft, Whitton Green, London E17 9QY.

• DA'Trance will be releasing Poppy as well as Merlin and Major the Milkman this autumn. All three will be available shortly launched for Spectrum, Commodore, Amstrad and MSX.

DA'Trance, Unit 6, Shore Mall Ind Est, Saffron Walden, Essex CM11 1JG.

Hercules' Operations has launched Hercules Express for the BBC. Based on the trials of the Hercules chandlery, it's a conversion of the same game for the Spectrum Cost: £7.99. Also this month — Avion the Adventures Movie. A combination of arcade and adventure, it's a 3D real-time strategy game available on the Spectrum. Avion costs £7.99.

Hercules' Operations, 168 Merton Road, London SW15 4BT, 0181 456 4000.

• Four new Commodore 64 titles have emerged from Beyond Software. Axon is a puzzle adventure, Axon is a real-time adventure, Mr Robot is an arcade game with design and play facility, while Ms Chess is a 3D chess program. Games: £4.99, £4.99, £4.99.

Beyond Software Ltd, 120 Farnham Rd, London SE10 9AD.

• Games and Stories is possibly the most recent title for the Spectrum. The game makes use of the MIDAS adventure element of 3D graphic animation and costs £9.99 on the Spectrum. Commodore 64 version to follow.

PGS, 402 Sheep Street, Liverpool L10 7DD.

• Kolf Harris is back in Commodore's Picture Builder. This is a program which enables shapes and building blocks to create complex pictures and scenes. Suitable for use by both adults and children, the package includes a user facility and costs £9.99 on cassette.

Commodore, 1 Wherry Way, Woking, Surrey GU1 1DX.

• The Designer's Pencil is Activision's "easy-to-use" graphics program, which allows you to draw graphics on screen, as well as providing a musical background — and all you have to do is use your joystick. On the Spectrum, Designer's Pencil costs £9.99, while C64 £14.99, Amstrad £12.99 and MSX £10.99 are available for £11.99.

Activision, c/o Ray Madian Associates, 177 Portobello Rd, Brixton, London SW9 8EP.

Buster and Black Bear (Castlevania) are Activision's first two arcade games, while The Serpent is in a new adventure. On cassette the games cost £9.99, while disc versions (with the exception of the Serpent) cost £11.99.

Activision, 1000 Avenue Ave, Suite 100, Emeryville, CA 94608 USA.

**Treasure hunt**

Commodore has announced the launch of a software/book package which looks set to spark off a £1m treasure hunt.

Based on the book by John Worrell, the Quest of the Knights is an easier game with 20 locations, as well as a different game must be played. Discover hidden letters, make up a secret word and solve the riddles in the book to find 40 treasures and the Great White Elk.

Those who discover the treasures will share the prize money, which will be accumulated in private sales revenue. Commodore is also giving 50% Commission on page 8.

It came as a great surprise when the Spectrum+ arrived. Rumours had been flying for some time, but it was quite a shock in get it. The Spectrum+ was launched in the public on the day when dealers received the machines, in order to avoid the QL fiasco.

The Spectrum+ is similar in styling to the QL. It is a flat sitting block with a QL-style flat keyboard on top. All the Spectrum connectors are in exactly the same position on the back as they are normally, with good reason. The Spectrum+ is a Spectrum—nothing more, nothing less—with a different keyboard and processor.

At the rate of the keyboard is a much more painful. This saves the weight and cost of carrying the massive off and on to clear the memory connectors. However that's all it does, there is no facility to keep memory contents secure.

The keyboard isn't brilliant—it is marginally better than the original Sinclair keyboard, but that's not saying much. Key layout is much better and there are more keys available standard mode, shift, delete, break, cursor control keys, cursor cap, shift etc. In all there are 96 keys, which is quite an improvement on the old Spectrum's 88. The keyboard also has little lugs which fold out from the back to improve typing angle.

The big problem with the keyboard is the choice of the keys, which aren't very much, indeed. There are seven uppercase, caps dead. Also the keys keep falling out. They had fallen out in storage, they kept falling out later, and according to my local W.H. Smiths, their standard keys had all fallen out, resulting in a very embarrassing re-assembly before sale.

However the reason is a work of art. It has been written by Dorling Kindersley, the company which produces the superb *Encarta* (See review of books for various sources).

The mouse is designed on the same lines as the QL with full colour throughout. Colour has been used to great effect with colour coding and full colour screen shots of exactly what should be happening on your screen. There are pictures of the standard scroll, zoom and switch functions, plus the picture of the mouse shows an ordinary Spectrum PCB case in white although the machine itself has a QL. This looks unconvincing as other manufacturers do how to produce a mouse, and it will be on sale to existing

# The Spectrum is dead! Long live the Spectrum?

**Sinclair sprang its new model on us all without pre-promotion promises. Mike Roberts studies the new Spectrum and gives you his frank opinions**



The old and the new



Spectrum+ with arm manual and introductory cassette

Spectrum owners at £4.95

The power supply is very similar to the QL. It's very sturdy and fits in well with the design.

The expansion slot at the back creates problems. Most independent Spectrum peripherals are shaped to fit around the thin rear edge of the old Spectrum's case. The case on the Spectrum+ is slightly larger, and has a slight projection above the slot. This results in most peripherals failing

not fitting. Most cartridges, and their connectors can be bent into shape, but some are a bit loose and can fall off or wobble easily, and the odd few make such a bad connection that the Spectrum+ refuses to start up. It just sits there with port hole and bang. These peripherals can also crash the machine in operation, losing all your programs.

There is also a problem with software. Some games which have quite reasonable key

layouts are spoilt by the different arrangement of the keys on the Spectrum+. There may also be a problem with keyboard scanning—use of the keys on Amstrad computers not so easy. However, this has not been verified. A one-game package with the memory in the gift pack are YU-10, Matrix 2, Clippy, Number Chase, Chained Plug and Turned 2.

All these programs are two of high class. Turned 2 is the definitive word processor for the Spectrum. YU-10 is a 3D graphics program from Picnic Software. It is an excellent implementation by Picnic and Lynette Games, in Chequered flag you have opened the checkered board Picnic colours, while Chase has all the features you would expect.

In conclusion, this is a Spectrum with an estimated list price of £139.95. The software and a basic price tag. For me, I'd go for YU-10. For the price of a Spectrum+ and a joystick extension you could get an Amstrad 4000XL or Commodore 64. For the price of a Spectrum+ a joystick interface and a decent joystick you could get an Amstrad.

Close up on the keyboard

When the Spectrum first came onto the market, again was revolutionary. A year later it was stale. Now it maintains popularity on the strength of software available, plus these are machines with a higher spec at a slightly higher price. The Spectrum+ is now at the price bracket of the more advanced machines. For a similar price you could buy a QL, Amstrad keyboard and an Spectrum interface and the keyboard would be better.



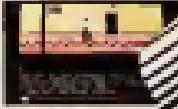
# Adventure

**2012131201** Be the world's greatest sleuth - as the most advanced and challenging adventure game ever! For the first time in an adventure game you talk with intelligent characters, ask them questions, and argue with their opinions. Study the clues, question the suspects, make the deductions - and solve your web-based mystery completely correctly and victory!

**100% EXPLORE**, page 17 & 18  
Tolkien's Middle Earth at its  
best, among the three full  
decks. A great way to teach  
Fiction games will be subject  
matter, as well as fun.  
Tolkien is any other adventure  
game, however.  
**Pete Gardner**, *Adventure*  
One of my favorite games from a  
program that's been around since

**REVIEWED:** *Alone in the Dark* is an adventure game for would-be serial killers. It's a great, but horrific game. You can't stomach the graphic nature of *Alone in the Dark*. After starting the game, you soon realize why you were able to become a murderer. So be careful, violent and depraved. You know it makes *Letsplay*.

**COMPUTER LANGUAGE** This program has it all: smooth, artistic style graphics, every location is clearly displayed in three-dimensional graphics, make the mystery and adventure in the mysterious Sultan's kingdom each exhilarating problem full of variety and challenge. Download from... a totally new adventure experience!



Mathematics Faculty Education Seminar



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- During the last year, the number of patients with primary hypertension has increased by 10%.



I reduce my cholesterol by eating fish

Photo taken by Steven Gandy

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Page 1

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All present with mild skin erythema  
during their hospital visit



## COMPETITION

# Win two great games from Statesoft



You could win two exciting games in this week's spot the difference competition.

IF YOU'RE a winner in this week's competition you can look forward to finding yourself anti-space to combat alien intent on destroying the earth.

We're giving away two sets of the space classic — you can enter again and be entered a third time in Statesoft's intergalactic game, Asteroids.

We're giving away 200 sets, each consisting of one of Statesoft's top rated Asteroids and Fly and Fly, both for the Commodore 64. Both games are worth \$19.95 so you could win about \$1,200 worth of software. You will make a good choice of success games and nothing up to date.

Everyone likes to see who arrived the early in the 20th century. And what better place to experience the game with a food field and planet Mars above the earth. You must attempt to eliminate the threat to the earth. Take advantage of the planet's gravity, move about and adjust to its curve and there are various means of kill your planet including blasters, lasers, firecrackers and fireworks. There are 24 levels and the action is fast and furious.

Fly and Fly brings you back down to earth but you won't have time to complain. The game is set in a room and the aliens are trying the language and think the monkeys the aliens are trying to escape

from the sun or relate the edge has day been so flooded with the invaders, flying into and ready to attack.

This is where and we assume you could be playing Fly as he leaves around on ships and the most unique the aliens try dropped over and think it's coming from no specific direction because there are 24 levels and 12 different weapons were selected, mostly no weapons per alien. If you do decide enough to complete the game, you may be the big one filled with all the pleasure of the course.

It's very unusual and the rewards could be great, so why not you win?

### How to enter

Look closely at the two pictures — there are a number of differences between them. There are 10. The differences are obvious. It and the person and weapon in an average. Write down the number of differences you found in the

back of the envelope.

Put your entry in Statesoft Competition, Home Computer Weekly, Ms. Codes Report, Legend West, 1400 Olympic, Suite 100, Los Angeles, CA 90064. Please don't put the first post on Friday October 12, 1984.

The prize money is many times as much cash, but each entry has to be an official coupon — this is cash — and coded on a separate envelope. Please follow along the guidelines in the directions — incomplete coupons or envelopes which are numbered on the back cannot be considered. If you are a winner, the coupon will be used as a ticket to mail your prize so please write a message.

### The rules

Entries will not be accepted from employees of Apple Software, Pacific Sales, Bellsoft and Allshare Systems or their immediate family or agents or employees of RadioShack and agents of the magazine. The rules in these rules form part of the rules.

## Statesoft Competition

### Entry Coupon

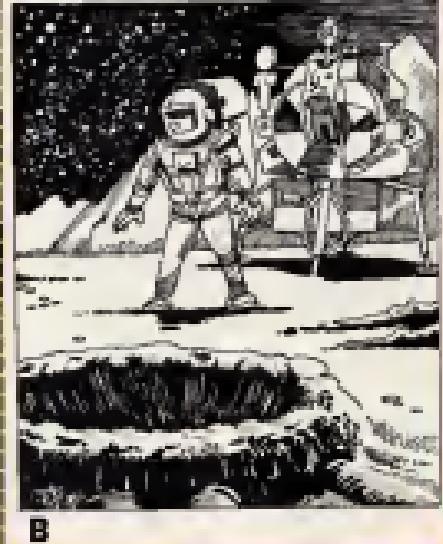
Name \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_ post code \_\_\_\_\_

Number of differences found \_\_\_\_\_

Commodore 64 and Fly — or you like a computer you can get an Apple II, Plus, or a PC. The prizes will be awarded to the winners in the following categories: 1. Total number of differences found in the two versions



A

B



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## You could be on our pages

We welcome programs, articles and tips from our readers. If you feel that your work meets our standards, please submit it to us for consideration for publication.

- Programs must always be sent on cassette. Listings are helpful, but not necessary. Check carefully that they are bug-free. Include details of what your program does, how it works, variables you have used and hints on conversion.

**a** Articles on using home computers should be no longer than 2,000 words. Don't worry about your writing ability — just try to keep to the style in *ACW*. Articles must ideally be submitted well help our readers make better use of their machines by giving useful ideas, possibly with programming examples. We will convert any scratchy illustrations into finished artwork.

- Tips are short articles, and brief programming routines. Your hints can aid other computer users.

All submissions will be acknowledged and the copyright in such works which will pass to Argus Specialist Publications Ltd will be paid for at competitive rates.

Keep a copy of your work and include an S.A.E. Label everything clearly and give a daytime and home phone number if you can.

All work for consideration should be sent to:

Paul Upton, Home Computing Weekly,  
No. 1 Golden Square, London W1P 3EE

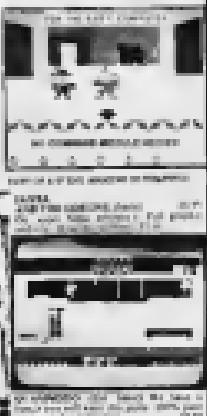
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# Escape from Devil's Island

The game is set in the notorious Devil's Island prison camp. Made from wood, film and books, you can now get an insight into life from this computer program.

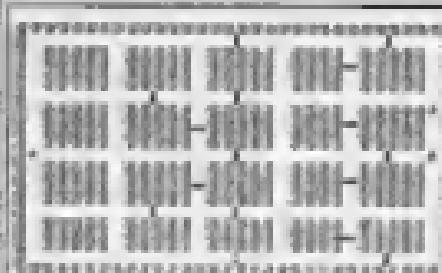
You must escape from your confinement and attain your freedom, but it's no easy task. There are three different prison blocks from which you must break out, and you only have three chances to take care.

There are guards positioned around who will stop at nothing to foil your escape attempts and each time you complete a room another guard is added, so it

**Variables**  
 #1 TO #8 room position of guards  
 L holds amount of guards on screen  
 I from left  
 R to right  
 S score  
 #10 screen you are in  
 #11 character whose guard moves  
 Q#1 position of man  
 #12 key of characters used to read keyboard  
 #13 distance between man and guard  
 #14 escape the number of guards  
 #15 escape the number of guards

**How it works**  
 #1 goes to instructions and #10  
 #11-#14 set up variables  
 #15-#18 set up screen and press  
 man on it  
 #19 reads keyboard  
 #20 jumps to routine which  
 checks if guard has reached  
 man or not received  
 #21-#22 checks which key received

**In this program you're doomed to a life of imprisonment unless you can outwit your captors and claim your freedom. Simon Triggs' exciting game gives you a taste of life inside one of the world's most infamous prisons**



**Screen dump:**

and moves man if guard  
 #23-#26 checks if collision  
 between man and guards  
 #27 checks if man reached  
 safety, if yes goes to  
 continue routine  
 #28-#30 checks distance between  
 man and guards  
 #31-#35 travel points of screen  
 down to down  
 #36 jumps back to keyboard  
 reading routine

#37-#41 prints message, places  
 man, adds up score, adds 1 to  
 overall distance, adds extra  
 point, checks if all three  
 rooms completed, if yes  
 goes to continue routine  
 #42-#45 prints message, writes the  
 key to be pressed, starts new  
 screen  
 #46-#50 prints escaped message,  
 makes score, sets off timer to  
 play again

## **Listing**

```

10 DO SUB 8000
20 DIM A(4,4) LET I=7 LET J=3 LET K=0 LET N=1
21 BORDER A1 PAPER A1 INK 1
22 LET N=1
23 LET Q=11 LET P=1
24 LET A(11)=11 LET A(12)=20 LET A(13)=8 LET A(14)=10 LET A(15)=12 LET A(16)=20
LET A(17)=10 LET A(18)=30 LET A(19)=20 LET A(20)=20
25 PRINT "XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX"

```

becomes progressively more difficult.

Just to make the game a bit more interesting, you can't go through a door until a guard has opened it for you to leave the plenty of obstacles in the way of your plans.

If you find Devil's Island security is too tough and all your bids for freedom end in failure, you can remove lines 401 and 402. That will make you more likely to win, you'll have more chance of success and there is less likelihood that you'll have to endure life imprisonment.

200-204	check if appropriate key pressed
205-206	print message, do screen test, print escape message, wait for key press
207-211	print one screen
208-209	key to CDE

**Help on variables**  
 This program takes advantage of the Spectrum's well defined facilities to avoid as far as possible to use the same letter names because it is more convenient to change certain parts of the screen than to ALLOCATE and AREA while saving the graphics and definition of a character at that position.

The #HELP command can easily be replaced by other commands, just have a #DEFINE #PRINT AT n,m,n, a series of values numbered 1 to 20 and columns numbered 1 to 20 the screen might be numbered 1 to 21 and the command #PRINT at might be word.

## PROGRAM



```
100 LET a$="A BABA BABA BABA BABA B"  
101 PRINT "A"  
102 FOR t=2 TO 5: PRINT AT 1,0,t: NEXT t  
103 PRINT "A"  
104 FOR t=7 TO 10: PRINT AT 1,0,t: NEXT t  
105 PRINT "A"  
106 FOR t=12 TO 15: PRINT AT 1,0,t: NEXT t  
107 PRINT "A"  
108 FOR t=17 TO 19: PRINT AT 1,0,t: NEXT t  
109 PRINT AT 20,0,"  
110 PRINT AT 21,0,"XXXXXXXXXXXXXXXXXXXXXX"  
  
111 INK 21 PAPER A1 BORDER A  
112 PRINT AT 1,18,"A" AT 20,18;"B"  
113 PRINT AT 11,18;"C" AT 13,18;"D"  
114 PRINT AT 9,20;"E" AT 14,20;"F"  
115 PRINT AT 4,19;"G" AT 16,19;"H"  
116 PRINT AT 11,27;"I"  
117 PRINT AT 20,27;"J" AT 1,29;"K"  
118 PRINT AT 8,28;"L" AT 16,28;"M"  
119 PRINT AT 3,29;"N" AT 8,29;"O" AT 16,29;"P"  
120 PRINT 80;"TWENTY EIGHT HUNDRED TWELVE"  
121 PRINT AT 0,0; INK 3;"R"  
122 LET a$="INKE"  
123 IF a$="" THEN GO TO 454  
124 IF a$="A" THEN IF SCREEN(q$,r)="-" THEN PRINT AT q,r; PAPER & INK 1;"  
125 LET q=q-1; PRINT AT q,r; PAPER & INK 1;"B"; GO TO 454  
126 IF a$="B" THEN IF SCREEN(q$,r)="-" THEN PRINT AT q,r; PAPER & INK 1;"  
127 LET q=q-1; PRINT AT q,r; INK 1;"C"; GO TO 454  
128 IF a$="C" THEN IF SCREEN(q$,r+1)="-" THEN PRINT AT q,r; PAPER & INK 1;"  
129 LET q=q-1; PRINT AT q,r; INK 1;"D"; GO TO 454  
130 IF a$="D" THEN IF SCREEN(q$,r-1)="-" THEN PRINT AT q,r; PAPER & INK 1;"  
131 LET q=q-1; PRINT AT q,r; INK 1;"E"  
132 IF ATTR(q$,r)=52 THEN GO TO 3500  
133 IF ATTR(q$,r+1)=52 THEN GO TO 3500  
134 IF ATTR(q$,r-1)=52 THEN GO TO 3500  
135 IF ATTR(q$,r)=53 THEN GO TO 3500  
136 LET p=1;r=r+1;  
137 LET q=q+1;q=q;
```

## SPECTRUM PROGRAM

```
401 FOR a=1 TO a=1000
402 IF y>0 THEN IF (SCREEN:160+1,a,y+1)=0 OR ATTR(160+1,a,y+1)=001 THEN
403 PRINT AT a,y+1,"1"; LET a=a+1: y=y+1: GO TO 400
404 IF y>0 THEN IF (SCREEN:160+1,a,y+1)=0 OR ATTR(160+1,a,y+1)=001 THEN
405 PRINT AT a,y+1,"1"; LET a=a+1: y=y+1: GO TO 400
406 IF z>0 THEN IF (SCREEN:160+1,a,y+1)=0 OR ATTR(160+1,a,y+1)=001 THEN
407 PRINT AT a,y+1,"1"; LET a=a+1: y=y+1: GO TO 400
408 IF z>0 THEN IF (SCREEN:160+1,a,y+1)=0 OR ATTR(160+1,a,y+1)=001 THEN
409 PRINT AT a,y+1,"1"; LET a=a+1: y=y+1: GO TO 400
410 IF z=1 OR z=-1 OR y=1 OR y=-1 THEN GO TO 3000
411 PRINT AT a,y+1,BLUE+4: END : PAPER END "C"
412 BEEP .01,20
413 LET a=a+1: IF a=100 THEN LET a=1
414 NEXT a
415 END TO 440
416 CLR : PRINT AT 10,7;"CONGRATULATIONS"
417 RESTORE 1000
418 FOR a=1 TO 41
419 READ n
420 BEEP .1,n
421 BORDER a=1
422 NEXT a
423 DATA 0,0,0,0,7,7,0,0,0,0,0,2,2,4,5,4,3,2,1,1,2,3,4,5,5,0,0,7,0,0,0,0,7,
424 ,0,1,4,2,2
425 BORDER 4
426 FOR i=1 TO 100: LET a=a+1: PRINT AT 11,14+i: NEXT i
427 LET b=100: LET c=c+1: IF c=10 THEN GO TO 2000
428 PRINT AT 14,8;"PRESS ANY KEY": PAUSE: CLR : GO TO 21
429 CLR : PRINT AT 10,10;"WELL DONE": PRINT : PRINT " YOU ESCAPED FROM DEVILS
ISLAND"
430 FOR a=1 TO 10: FOR z=1 TO 7: BORDER a BORDER z: BEEP .01,z: EDIT a: NEXT a
431 PRINT : PRINT " You scored " : PRINT "GO YOU WANT TO PLAY
AGAIN ?y,n"
432 IF ?KEY="y" THEN RUN
433 IF ?KEY="n" THEN STOP
434 GO TO 2000
435 CLR : PRINT AT 10,8;"ONE OF THE GUARDS GOT YOU": PRINT
436 LET i=1: IF i=0 THEN PRINT " MERRY! YOU DIDN'T MAKE IT": FOR a=0 TO 1
437 STEP -1: BEEP .1,a: NEXT a: GO TO 2020
438 FOR i=1 TO 10: FOR a=7 TO 1 STEP -1: BEEP .01,a: EDIT NEXT a: NEXT i
439 PRINT AT 16,8;"STARTED LEFT ?l: PRINT : PRINT " PRESS ANY KEY": PAUSE: CLR : GO TO 21
440 PRINT : PRINT " DEVILS ISLAND"
441 PRINT "
442 PRINT : PRINT " Try and escape from the top security prison on Devil's Island"
443 PRINT : PRINT " There are Guards patrolling the prison which are after you.
If they catch you, you are sent back to your cell, but if you are caught
3 times you are executed"
444 PRINT : PRINT " You have to escape 3 times. After each successful escape an extra
guard is placed in the prison to try and stop you. There are also doors which
you must go through but you can't go through these until a guard has opened
them first."
445 DO 1000
446 PRINT 801: " PRESS ANY KEY": PAUSE 0
447 CLR : PRINT " You have to try and get to the door on the far right of the
prison to escape."
448 PRINT : PRINT : PRINT " Use the following keys: "
449      LeftRight      Up      ArDown
450 PRINT : PRINT
451 PRINT " These are you're INK Colours": PRINT "These are the guards INK Colours"
452 PRINT : PRINT : PRINT " PRESS ANY KEY TO PLAY": PAUSE 0
453 CLR
454 RETURN
455 RESTORE 1000: FOR a=1 TO 1000: a=a+1: READ b: PAPER a,b: NEXT a: RETURN
456 DATA 170,170,170,170,170,170,170,170
457 DATA 0,24,24,128,127,127,128,128
458 DATA 48,34,34,128,127,127,128,128
```

# Split your screen for better graphics

**So you thought you could only use one graphics mode at a time on your Commodore 64? Allen Webb has got news for you**

Despite the well-known flaws of BASIC 2 and the missing graphics commands, the Commodore 64 has followed in the footsteps of the VIC-20 in terms of a highly versatile machine. The basic machine offers a number of graphics modes and, of course, the famous sprites.

The bad news is that you can only have one graphics mode in use at any one time — or two, you?

Fortunately, the machine's VIC chip offers a way to have several modes in operation at once.

Locators 32264 and 32348 hold the position of the upper and lower graphics areas. The pattern appears on the TV screen as a result of a scanning beam which originates on the phosphor coating of the screen. This beam, in raster, scans

the screen at great speed in horizontal lines. If you write a value to the raster register addressed earlier, it is possible to specify the line on the screen at which a raster interrupt occurs.

When setting up any interrupt, the CPU jumps to a specified routine and continues. The control bit is to set the routine called to change the boundaries of the screen. Hence, it is possible to have separate areas with different graphics modes.

The listing gives a routine which splits the screen into three areas. The pattern from line 1040 onwards is a demarcation routine.

The modulus of each area are placed in the cassette buffer. I find the two convenient since the location are easier to remember:

It does mean, however, that you must set and clear registers with the same interrupt routine (lines 30,310-30,319).

The modulus for each area have the following effects:

0000 specifies no scan of the screen. The values in the listing give roughly equal areas.

0001 corresponds to the value to be put in VIC register 32264, i.e. a value of 23 gives standard text, 21 gives extended text, and 20 gives bit-mapped text.

0010 corresponds to the value to be put in VIC register 32348, i.e. a value of 8 gives normal text and 24 gives supergraphics.

0011 uses the background pattern.

0020 uses the value in VIC register 32272, i.e. a value of 29 gives upper case white 23 gives

lower case. Use a value of 24 in bit map mode (not recommended).

The demarcation portion of the listing shows you how to split up the screen with the graphics in the top, supergraphics in the middle and extended background at the bottom.

One word of warning. If you plan to have a bit-mapped area, you must move the buffer of BASIC to prevent corruption of your program. Use the line `POKE 641,60 672,6760`

before loading the program. Ensure that you save the program before running it. An error may be made. Try changing the modulus until the saved screen position with the new height. You'll soon see how to set up the areas of your choice.

```
10 DATA 126,169,127,141,13,229,169,1,141,26,209,169
20 DATA 3,133,231,173,68,3,141,18,209,149,24,141
30 DATA 17,209,173,28,3,141,118,192,173,21,3,141
40 DATA 111,132,169,38,141,28,3,169,132,141,21,3
50 DATA 88,96,173,23,209,141,25,229,41,1,248,43
60 DATA 190,251,16,4,169,2,193,251,166,251,189,63
70 DATA 3,141,33,209,169,66,3,141,17,209,169,63
```

## COMMODORE 64 PROGRAMMING

```
88 DATA 3,141,22,288,189,72,3,141,24,288,189,60
99 DATA 3,141,18,288,188,248,6,184,188,184,178,184
100 DATA 64,76,49,234
110 REM SET ZONE 3 TO YELLOW BACKGROUND WITH NORMAL LOWER CASE TEXT
120 H1(1)=49 C0(1)=7 R1(1)=91 R2(1)=8 RE(1)=22
130 REM SET ZONE 2 TO CYAN BACKGROUND WITH NORMAL UPPER CASE TEXT
140 H1(2)=178 C0(2)=9 R1(2)=47 R2(2)=8 RE(2)=20
150 REM SET ZONE 1 TO BLUE WITH HI-RES BIT MAP MODE
155 H1(3)=128 C0(3)=6 R1(3)=59 R2(3)=8 RE(3)=24
160 FOR I=1 TO 263 REND(I) POKE I,HEX
170 FOR I=1 TO 3 POKE 827+I,HV(I) :NEXT
180 FOR I=1 TO 3 POKE 830+I,C0(I) :NEXT
190 FOR I=1 TO 3 POKE 833+I,R1(I) :NEXT
200 FOR I=1 TO 3 POKE 836+I,R2(I) :NEXT
210 FOR I=1 TO 3 POKE 839+I,HEX(I) :NEXT
220 SYS12#4896
1000 REM
1010 REM STRAIGHT TEXT R1=9, R2=8
1020 REM MULTICOLOUR R2=24
1030 REM EXTENDED R1=91
1040 REM BIT MAP R1=59
1050 REM UPPER CASE RE=20
1060 REM LOWER CASE RE=22
1070 REM
1080 REM SUBSCRIPT 1= ZONE3
1090 REM SUBSCRIPT 2= ZONE2
1100 REM SUBSCRIPT 3= ZONE1
1110 REM
1120 REM TO REDUCE THE WIDTH OF ZONE 1- REDUCE H1(3)
1130 REM
1140 REM TO REDUCE THE WIDTH OF ZONE 3, INCREASE H1(2)
1150 REM
2000 CH=1624:REM COLOUR MATRIX
2010 IM=0192:REM BIT MAP
2020 REM CLEAR HI-RES PAPER
2030 FOR I= IM TO IM+3200 POKE I,8 :NEXT
2040 REM BLACK DOTS ON WHITE BACKGROUND
2050 FOR I=CH TO CH+359 POKE I,1 :NEXT
2060 FOR X=0 TO 919
2070 Y=354005(X/10)+35
2080 CH=INT(X/8)- RD=INT(Y/8) : LI=Y RD=7
2090 3Y=RD*RD*32848#CHLI: BI=7-(X AND 7)
2100 POKE BY, PEEK(BV) OR 42(BV) :NEXT
2000 PRINT "#XXXXXXXX":FOR I=1 TO 8 PRINT "#MASTER GRAPHICS GIVE YOU MORE CHOICE"
2010 NEXT :FOR I=1 TO 3
2020 PRINT "#MASTER GRAPHICS GIVE YOU MORE CHOICE"
2030 PRINT "#MASTER GRAPHICS GIVE YOU MORE CHOICE"
2040 PRINT "#MASTER GRAPHICS GIVE YOU MORE CHOICE"
2050 PRINT "#MASTER GRAPHICS GIVE YOU MORE CHOICE"
2060 FOR I=1 TO 480 :NEXT
2070 D0T03070
```



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## Ghost Rider 48K Spectrum £9.95

**Programmer:** Jason S. Brightwell, Chipping Ongar, Essex.

This game combines simple action with strategy and adventure. You must collect objects, map tiles, 12 items involving deadly plants. You must fit them onto a grid and also fire spells. The 1200D instructions are very detailed.

On screen, you find yourself at 2.5D. The items have values or more values than usual play and life spans in hours, with experience in hours, if used, a key, a pool of life and usually a protecting plant.

Moving up a staircase, you travel via lift from floor-to-floor collecting objects.

The rule is to never approach a bad plant, and some plants

refuse to collect. Unless the life is in reverse direction, new floors appear impossible to reach from the previous one. The secret is where you collect probably has some bearing.

Overall a good and original well done, particularly fitting off, although the 1200D background gives an unbalanced look.

Five hours are easily lost and the collected objects disappear with the life. Protection becomes important after about four hours of starting again. Try before you buy.

D.J.

paranormal  
playability  
graphics  
value for money

90%  
90%  
90%  
90%

★★★

## Deus Ex Machina 48K Spectrum £15

**Programmer:** Tim Hartland, 24, Petersfield, Hants GU4 9SA.

To call this a game is an insult. It's a simulation and problem solving exercise.

As the futuristic scientist, you must reconstruct and repair damaged structures and various personalities. Dr. Dorn, Dr. Parsons, Professor Howard and Doctor Bailey provide over the assistance, development and death of an alien race. Human civilians are portrayed as Andrew Lloyd Webber's Andrew Mel Chooch, who is dead and posthumous the most.

You must guide the Dorn robot, and his crew of the erg, giant ray gunners, and robot the Doctor. As the opposing forces gain in strength, your resources become more limited, until the programme ends under the scrutiny of the Doctor Police.

The system is a delight and must be experienced. But can't it? It requires a wealth of knowledge, paid on head, to be appreciated by someone in my company. Finally death on the form of destructions available must be applied. There there is a final reckoning as your creation ends at least a differs.

The main plot takes over home, no indeed. Is "other" memory a misleading concept, in the face of something unique? That's the last we see of us.

Interactions  
playability  
graphics  
value for money

★★★ ★

## Twin Kingdom Valley 48K Spectrum £7.95

**Programmer:** Michael Hart, Chipping Ongar, Essex CM1 1EE.

With the Gemini, Marquees and added, the 128K in, full colour, sound, and other improvements are hopefully described as the way it appears on screen, as the slightly unusual program best suited for older machines. Two hours 40 seconds leading back to the point of introduction is still great.

The beginning should say Options pot — give this if advised with long description — and all the rest followed. You can control your world here, with colour, sound, and music worth more than a collection of Mi

cute and innocent children. The

second has a castle and a tower in order to require as much weight as possible.

Two simple directions make being enabled or disabled in a friendly manner and can be increased with ease or open shooting at nothing. There are no special commands, followed by a, running in, STOP, LOAD options and a change in pressing speed. Caps Shift, Return prevent and Stop repeat etc.

By using these places you can start a copy of the valley wide or even boundaries are revealed to Link, Waterfall. A good start for the adventure factor with more advanced features. T.W.

paranormal	90%
playability	90%
graphics	90%
value for money	90%

★★★ ★

## Hampstead 48K Spectrum £9.95

**Programmer:** Michael Hart, Chipping Ongar, Essex CM1 1EE.

This is a modern day adventure which partly involves direct firefights. You will need to use the computer keyboard and your mind to be successful.

Controlled by two separate screens, on which there is a pair of coordinates. This is worth getting.

There is a well produced double full of objects and information, most of which I won't name, but it is designed from man to machine. Using the programming code, there are possibilities. The author couldn't make his mind up whether the Doctor should begin with an easier or impossible lesson, and there are logical responses in those responses.

A lot of thought has gone into this game. The result is one of the best adventures I have played. Maybe a price, though, that can afford it, it is a nice game.

★★★★

paranormal	100%
playability	100%
graphics	100%
value for money	100%

★★★ ★

# Spectrum stars

Top quality adventure games for the Spectrum, these new programs were a hit with our reviewers

## Sherlock 48K Spectrum £14.95

**Programmer:** Tim Hartland, 24, Petersfield, Hants GU4 9SA.

Based on the famous fictional character, but as an adventure game in which you have to solve many sets of clues.

The first part of the overall adventure game when which must be solved to get on the right place, with the right things, the first you have to find a murderer, the other Sherlock Holmes staff.

This is the result of 11 months work by a team of programmers. Led by the author, Dr. Hobbs, Criminal Detective comes with a mixture of the police dozen to the screen, as well as the various descriptions. One-pun (there is a doctor) that's when the

person of interest in the plot, and can be solved by the command "who was said."

Our summary is that Sherlock may pay a rubber or refreshable phone, but he is not designed from man to machine. Using the programming code, there are possibilities. The author couldn't make his mind up whether the Doctor should begin with an easier or impossible lesson, and there are logical responses in those responses.

paranormal	100%
playability	100%
graphics	100%
value for money	100%

★★★ ★

# city under attack

We travel into the future with this game from John Morris,  
where you play the part of a young man on duty in the  
Laser Command Centre

All is quiet as you spend your  
idle time hidden below ground  
level in the Laser Command  
Centre.

Suddenly, Red Alert — the  
city is under attack. You are  
now in the position of having to  
defend the city against a  
dreadful attack of computer  
monsters.

You are armed with 12 laser  
tanks. For each wave of eight  
monsters, You have to guide the  
anti-tank sights around the  
screen and the guidance/  
rate/tilt cursor buttons.

#### Variables

AB 100 to be pressed on laser  
area  
ATE number of monsters  
D# speed of attack  
LS laser bolts  
T# horizontal position of sight  
V# vertical position of sight  
QA 128 horizontal position of  
monsters  
QV 128 vertical position of  
monsters  
SC 1000 high score  
SH 100 high score  
SMAX damage on city

Following the steps for when  
you have the tip of the  
controlling handle at your angle,  
will have behind it a monitor

which is the target for the  
ground-to-air laser bolts  
launched every five seconds.  
If you miss in time, the monsters  
will be destroyed.

However, if the ray is hit

#### How to win

1. You must eliminate all  
characters on screen  
2. Reach to lower case seventh  
line of monitor and remain  
so until place an anti-tank bolt  
on screen

3. 100-100 place together on  
area, these are two of  
existing monsters that pack  
128-128 points apart. Target  
monsters position according  
to player area

4. If the button pressed  
does not work best in  
middle position

5. 100-100 launch greatest to the  
left hand

6. 100-100 greatest left-most of  
existing monsters. Check  
low point monsters destroyed  
100-100 up date damage on city  
7. City screen above city  
8. 100-100 upper space, damage  
Check to see if 10000 points  
then high score

9. 100-100 laser impulses City  
destroyed

10. 100-100 place screen message  
and AB for pressing on laser  
cursor

11. 100-100 laser focus, low score  
12. check anti-tanker game

1200-1220 exploded on city  
1250-1280 continue attack and  
check monsters in what position  
the night attacking  
monsters are in to damage  
1300-1320 display city  
1350-1380 places 1000 to be  
pressed on to fire attack  
1400-1410 role small RED  
ALERT message screen  
area A  
1450-1460 red-letter characters  
1500-1510 DATA for new  
characters

After times of trials, I think  
monsters will be triggered and  
a game atmosphere closed will  
surprise the city — the game is  
this over.

A tip for entering the  
program after you have typed  
in the program, save it before  
running it. There are a number  
of CALL's and if you have  
made any errors mistakes you  
may crash the program and you  
will have to type in over again.

You can also, if you wish,  
leave out all the REM  
statements. This will not affect  
the program in any way and it  
will save you a lot of time when  
typing in the listing.

Remember, the city depends  
on you. The monsters may be  
destroyed, because the last  
thing we need is a massacre.

- 10 HIMEM=97FF
- 15 DIMK(12),L(12)
- 20 PRINTCHR\$ (20):POKE615,10:HB=100
- 30 0001UE5000
- 40 0001UE4000
- 50 0001UE3000
- 59 :
- 59 REM MAIN ROUTINE
- 60 CURSET&5,185,0:FORI=1TO12
- 61 REM
- 62 REM
- 63 REM
- 64 REM
- 65 REM
- 66 REM
- 67 REM
- 68 REM
- 69 REM
- 70 REM
- 71 REM
- 72 REM
- 73 REM
- 74 REM
- 75 REM
- 76 REM
- 77 REM
- 78 REM
- 79 REM
- 80 REM
- 81 REM
- 82 REM
- 83 REM
- 84 REM
- 85 REM
- 86 REM
- 87 REM
- 88 REM
- 89 REM
- 90 REM
- 91 REM
- 92 REM
- 93 REM
- 94 REM
- 95 REM
- 96 REM
- 97 REM
- 98 REM
- 99 REM

You will also have to read the  
red-letter characters and replace  
it later. 2000 to 4000 and it  
defines your menu characters and  
the role display and replace on  
later 4000 to 4110. This will only  
work on the Commodore

```

70 CHAR116,0,0:CURMOV10,0,0:NEXTZ
80 CURSET65,185,0:FORZ=1TO12
90 CHAR116,0,1:CURMOV10,0,0:CALL#FAFA:NEXT
100 GOBUB2500
110 CURSETX,Y,O:CHAR43,0,1:PING
120 R=D1 S=0
130 FORZ=1TO8:CURSET(DX(Z)),D,0:DRAMQZ(Z),20,1
140 NEXTZ
150 FORV=1TO9:GOBUB170:NEXTV
160 GOBUB310:GOTO400
170 Z=KEYS
180 P=X:D=Y
190 IFZ==" THEN270
200 IFZ==" THEN210E:SEN=ASC(Z)
210 IFH=8THENX=X-9:IFX<20THENX=224
220 IFN=9THENX=X+9:IFX>229THENX=21
230 IFN=10THENY=Y+7:IFY>140THENY=140
240 IFN=11THENY=Y-7:IFY<18THENY=18
245 IFTA=0THENCURSETP,D,O:CHAR43,O,2
250 TA=0:CURSETX,Y,O:CHAR43,O,2
260 RETURN
270 IFL=0THENPING:RETURN
280 TA=1:LB=LB-1:CURSETLB=10+65,185,O:CHAR116,O,0
290 B=S+1:K(B)=X,L(S)=Y
300 CURSETX,Y,O:CHAR43,O,1:RETURN
310 IFB=0THENRETURN
320 CALL#E6CA:FORM=1TO8:FORM=1TO2
330 CURSET120,160,O:DRAMK(M)-120,L(M)-156,2
340 NEXTW:ZAP
350 FORD=1TO9STEP-1:FORB=1TO9
360 SHOOT:CIRCLEB,D:NEXTB,D,M
370 CURSETX,Y,O:CHAR43,O,1
380 TA=0:B=0:Z=KEYS
390 CALL#E604:RETURN
400 BX=BX+1:M=BX*20
410 FORZ=1TO8
420 IFJ(Z)=1THEN440
430 RC=DX(Z)+BX*DZ(Z)
440 IFPOINT(RC,M)=0THENJ(Z)=1:H=H+1:GOTO460
450 CURSETRC,M,O:DRAMQZ(Z),20,1
460 NEXT
470 IFH=8THEN550
480 IFBX<7THEN120
490 FORZ=1TO8
500 IFJ(Z)=1THEN540
510 CURSETDX(Z)+B*DZ(Z),165,O
520 DM3E=DM3E+1
530 GOBUB2200

```

```

540 NEXT
550 CURSETO,0,0:FILL162,1,0:CURSETO,0,0:FILL160,40,64
560 CLS
570 SC=SC+(LS*5)-(DMSE*2)+20: IF DMSE=0 THEN SC=SC+50
580 IF ATC=1 AND DMSE>0 THEN SC=0
590 CLS:PRINT "DAMAGE: "; DMSE; " "
600 SC
601 IF DMSE<7 THEN SC
602 IF BC>H8 THEN HS=SC
610 CURSET120,150,0:EXPLODE
620 FOR I=1 TO 25:CIRCLEI,1:NEXT I
630 FOR J=25 TO 1 STEP -1:CIRCLEJ,0:NEXT J
640 CURSET75,75,0:AS="CITY DESTROYED"
650 S0SUS3500
660 CURSET75,90,0:AS="PRESS SPACE TO PLAY"
670 S0SUS3500
680 CURSET75,105,0:AS="ANY OTHER TO END"
690 S0SUS3500
700 CLS:PRINT "HI-SCORE: "; HS; " " LAST SCORE: "; SC
710 P$=KEY$: GET P$: IF P$="" THEN DO ELSE TEXT: CALL #F000
720 END
2198 :
2199 REM MISSILE DAMAGE ON CITY
2200 CALL #E6CA: EXPLODE: FOR F=1 TO 10:CIRCLEF,1:NEXT F
2210 FOR J=10 TO 1 STEP -1:CIRCLEJ,0:NEXT J
2220 CALL #E904: RETURN
2498 :
2499 REM INITIALISE ATTACK VARIABLES
2500 ATC=ATC+1: V=ATC+1: Q=INT(100/(V*2))
2510 N=0: LS=12: X=120: Y=60: BX=0: H=0
2520 FOR I=1 TO 8: J(I)=0:NEXT I
2530 FOR I=1 TO 8
2540 QX(I)=INT(RND(1)*200)+20
2550 QY(I)=INT(RND(1)*190)+20
2560 QZ(I)=INT((QY(I)-QX(I))/10)
2570 NEXT I
2580 RETURN
2998 :
2999 REM DISPLAY CITY
3000 CLS: EXPLODE
3010 PAPER0: INK6
3020 HIRES: PRINT CHR$(17)
3030 CURSETO,160,0:FILL17,1,8
3040 DMSE=0: ATC=0: SC=0
3050 CLS: PRINT "DAMAGE: "; DMSE; " "
3060 CLS: PRINT " "
3070 CURSET10,168,0:FOR Z=1 TO 37:CHAR111,0,1:CURMOV6,0,0:NEXT

```

## PROGRAM

```
3070 A$="rrrep rrprsp spssrrrs prprsprrp ss"
3080 CURSET10,160,0:GOSUB3500
3090 RETURN
3478 :
3499 REM PRINT TEXT ON HI-RES SCREEN
3500 FORZ=1TOLEN(A$)
3510 CHARASC(MID$A$,Z,1),0,1
3520 CURMOV6,0,0:NEXT
3530 RETURN
3998 :
3999 REM TITLE DISPLAY
4000 CLB
4010 A$="...RED ALERT...CITY UNDER ATTACK...USE CURSOR
TO AIM...SPA
CE TO FIRE"
4020 PLAY1,0,4,500:PLAY1,1,1,0
4030 POKE#268,#010A
4040 CLB
4050 FORZ=1TO102
4060 PLD0,11,LEFT$(A$,3B)
4070 PLD0,12,LEFT$(A$,3B)
4080 A$=MID$(A$,2)+LEFT$(A$,1)
4090 WAIT8:NEXT
4100 PLAY0,0,0,0
4110 RETURN
4498 :
4499 REM RE-DEFINE CHARACTERS
5000 ZX=46080
5010 FORV=1TO6
5020 READC:D$=C
5030 FORQ=0TO7:READF
5040 POKEZX+D+Q,F:NEXT
5050 NEXT
5060 RETURN
5070 DATA111,255,255,255,255,255,255,255,255
5080 DATA112,0,3,3,3,3,7,7,7
5090 DATA113,96,96,96,96,96,255,255,255
6000 DATA114,0,0,0,0,0,255,255,255
6010 DATA115,96,96,96,96,96,99,99,99,255
6020 DATA116,8,8,8,8,28,8,20,20
```



# CHARTBUSTERS

BRITAIN'S SOFTWARE CHARTS

Edited by Mark Burton-Gale

## ARCADE

- 1 *Galaxy Thumper* Ocean Spectrum 16
- 2 *Breakaway* C64 Gold Spectrum 16
- 3 *Monkey Island* Ocean Spectrum 16
- 4 *Breakout* C64 Gold C64 1
- 5 *Robotron 2084* Epyx Spectrum 16
- 6 *Populous* Infogrames Spectrum 16
- 7 *Mad Max* Activision Spectrum 16
- 8 *Auton* Infogrames Spectrum 16
- 9 *Robotron Gold* Ocean Spectrum 16
- 10 *Full Thruster* MicroProse Spectrum 16

## NON-ARCADE

- 1 *Train Driver* Valley Big Box Spectrum 16
- 2 *World Cup Action* Activision Amiga C64 16/4
- 3 *Land of Ultimania* Beyond Melbourne Inc Spectrum 16
- 4 *Shenmue* Sega Melbourne Inc Spectrum 16
- 5 *American Football* Melbourne Inc Spectrum 16
- 6 *Hampstead* Melbourne Inc C64 16/4
- 7 *Amnesia* Melbourne Inc C64 16/4
- 8 *Goldflight* A.S. Gold C64 16/4
- 9 *Star Trooper* Big Box Spectrum 16
- 10 *Heads* Melbourne Inc C64 16/4

Compiled with the assistance of Britain's leading software distributors, including: Pinnacle, SDI, PCE, Websters, PCS and Software Centre.

## SPECTRUM

- 1 *Space Invaders* Sinclair 16
- 2 *Space Invaders* Sinclair 16
- 3 *Space Invaders* Sinclair 16
- 4 *Space Invaders II* Sinclair 16
- 5 *Space Invaders II* Sinclair 16
- 6 *Space Invaders II* Sinclair 16
- 7 *Alien Strike* BBC Computer 16
- 8 *Alien Strike* BBC Computer 16
- 9 *Alien Strike* BBC Computer 16
- 10 *Alien Strike* BBC Computer 16

## COMMODORE 64

- 1 *Galaxy Thumper* Ocean Spectrum 16
- 2 *Breakaway* C64 Gold Spectrum 16
- 3 *Breakout* C64 Gold C64 1
- 4 *Robotron 2084* Epyx Spectrum 16
- 5 *Monkey Island* Ocean Spectrum 16
- 6 *Breakout* Epyx Spectrum 16
- 7 *Populous* Infogrames Spectrum 16
- 8 *Mad Max* Activision Spectrum 16
- 9 *Auton* Infogrames Spectrum 16
- 10 *Robotron Gold* Ocean Spectrum 16

## DRAGON 32

- 1 *Space Invaders* Ocean 32
- 2 *Space Invaders* Ocean 32
- 3 *Space Invaders* Ocean 32
- 4 *Space Invaders* Ocean 32
- 5 *Space Invaders* Ocean 32
- 6 *Space Invaders* Ocean 32
- 7 *Space Invaders* Ocean 32
- 8 *Space Invaders* Ocean 32
- 9 *Space Invaders* Ocean 32
- 10 *Space Invaders* Ocean 32

Compiled by Mark Burton-Gale and Websters. Figures in thousands of units sold, except where otherwise stated.

## VIC-20

- 1 *Computer Wars* Creative Systems 16
- 2 *Space Invaders* Spectrum 16
- 3 *Breakout* C64
- 4 *Breakout* C64
- 5 *Breakout* C64
- 6 *Breakout* C64
- 7 *Space Invaders* Creative Systems 16
- 8 *Space Invaders* Creative Systems 16
- 9 *Breakout* C64
- 10 *Breakout* Spectrum 16

## BBC

- 1 *Robotron* Activision Spectrum 16
- 2 *Breakout* Ocean Spectrum 16
- 3 *Breakout* Ocean Spectrum 16
- 4 *Breakout* Ocean Spectrum 16
- 5 *Breakout* Ocean Spectrum 16
- 6 *Breakout* Ocean Spectrum 16
- 7 *Breakout* Ocean Spectrum 16
- 8 *Breakout* Ocean Spectrum 16
- 9 *Breakout* Ocean Spectrum 16
- 10 *Breakout* Ocean Spectrum 16

## ZX81

- 1 *Breakout* Activision Spectrum 16
- 2 *Breakout* Activision Spectrum 16
- 3 *Breakout* Activision Spectrum 16
- 4 *Breakout* Activision Spectrum 16
- 5 *Breakout* Activision Spectrum 16
- 6 *Breakout* Activision Spectrum 16
- 7 *Breakout* Activision Spectrum 16
- 8 *Breakout* Activision Spectrum 16
- 9 *Breakout* Activision Spectrum 16
- 10 *Breakout* Activision Spectrum 16



DEPARTMENT

```

1000 IF R1P1<=X,Y1=100 THEN LET
1005 IF R1P1<=X,Y1=104 THEN LET
1010 L=1
1015 FOR S=1 TO L
1020 FOR V=Y-1 TO YY+1
1025 IF X1>=0,X1<=YY+1 OR Y1=V
1030 THEN GOTO 1470
1035 IF R1P1<=X,Y1=0 THEN GOTO
1040
1045 LET R1P1<=X,Y1=0
1050 EIGHT AT 100Y,3+X+10*(PL=1)
1055
1060 NEXT Y
1065 NEXT X
1070 GOSUB 6660
1075 NEXT D
1080 GOTO 1000
1090 LET P=0
1100 LET XX=0
1110 LET YY=0
1120 FOR S=1 TO L
1130 IF XX>=0,X1<=XX+1 THEN GOTO
1140 IF YY>=0 OR YY+1 THEN GOTO
1150 IF R1Z,X0,Y1=0 THEN GOTO 0
1160 GOSUB 6660
1170 NEXT D
1180 IF S=0 THEN LET CD=00
1190 LET XX=0
1200 LET YY=0
1210 FOR S=1 TO L
1220 IF XX>=0,X1=CD
1230 FOR S=1 TO YY+1
1240 IF YY=0 OR YY+1 THEN GOTO 12
1250 IF X1=1 OR X1=0 THEN GOTO 12
1260 IF R1Z,H,I)=0 THEN GOTO 660
1270 LET R1Z,H,I)=0
1280
1290 NEXT I
1300 NEXT H
1310 GOSUB 6660
1320 NEXT D
1330 RETURN
1340 LET L=8-INT ((8+L)/2)
1350 IF S>0 THEN LET LS=0
1360 IF S>0 THEN LET DS=0
1370 IF S>0 OR S=0 THEN LET CD=4
1380 IF S>0 OR S=0 THEN LET CD=4
1390 IF S=0 THEN LET CD=00
1400 RETURN
1410 INPUT CD
1420 LET S=CD-1
1430 LET X1=CODE(S+1)-37
1440 IF X1<0 OR X1>0 THEN GOTO 14
1450
1460 IF CODE(S+1)<0 OR CODE(S+1)
1470 OR CODE(S+1)>0 THEN GOTO
1480
1490 IF CODE(S+1)<0 AND CODE(S+1)
1500 THEN GOTO 1490
1510 LET Y=URL(S+1) TO S1
1520 RETURN
1530 LET XX=XX+1 OR -DS OR DS
1540 OR DS-1 OR DS+1 OR DS OR DS
1550 OR DS-1 OR DS+1
1560 LET DS=PL(S1,X,Y)
1570 LET S=S+1
1580 IF S>0 THEN RETURN
1590 LET DS=0
1600 GOSUB 6660
1610 IF X1>=0,X1<=YY+1 OR YY+1
1620 OR YY+1>=0 THEN GOTO 660
1630 IF R1P1<=X,Y1=CD THEN GO
1640 TO 1470
1650 GOTO 6660
1660 LET DS=0
1670

```







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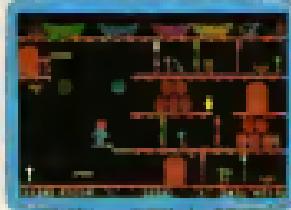
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1	
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Commodore 64

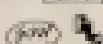
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